AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A method for allocating computer system resources between concurrently executing workloads, comprising:

establishing a first resource pool that specifies requirements for each of a plurality of different computer system resources, wherein the plurality of different computer system resources are components of a single computer system, wherein the computer system resources include central processing units and at least one of memory, swap space, network interfaces, and scheduling classes, and wherein establishing the first resource pool involves establishing minimum size and maximum size requirements for a given resource that can be assigned to the first resource pool;

allocating the plurality of different computer system resources to one or more resource pools, including the first resource pool, to create a resource allocation, wherein requirements of the first resource pool are satisfied, ~~and~~ wherein the resources are assigned to the first resource pool, and wherein each resource pool can use a different scheduling technique;

wherein prior to allocating the plurality of different computer system resources, the method further comprises:

verifying that collective requirements of the one or more resource pools can be satisfied, and

if the collective requirements cannot be satisfied, signaling an error condition; and

wherein resources allocated to the first resource pool can change over time;

binding a first process to the first resource pool, so that the first process has access to the plurality of different computer system resources allocated to the first resource pool; and

storing a representation of the resource allocation to non-volatile storage so that the resource allocation can be reused after a machine failure.

2. (Original) The method of claim 1, wherein allocating the plurality of different computer system resources to one or more resource pools involves:

partitioning each of the plurality of different computer system resources into one or more partitions, wherein a first partition is associated with a first resource and a second partition is associated with a second resource;

allocating the first partition to a single resource pool, so that only processes associated with the single resource pool can access the first partition; and

allocating the second partition to multiple resource pools so that processes associated with the multiple resource pools can share the second partition.

3 (Canceled).

4. (Original) The method of claim 1, wherein establishing the first resource pool involves selecting a file containing a representation of the first resource pool from a plurality of possible files.

5 (Canceled).

6. (Previously presented) The method of claim 1, wherein storing the representation of the resource allocation involves storing a representation of each of the one or more resource pools along with associated resources.

7. (Previously presented) The method of claim 1, wherein storing the representation of the resource allocation involves storing an Extensible Markup Language (XML) representation of the resource allocation.

8. (Original) The method of claim 1,

wherein the first resource pool is associated with a first project; and

wherein the first process is one of a plurality of processes associated with the first project.

9 (Canceled).

10. (Original) The method of claim 1, further comprising dynamically adjusting the resource allocation during system execution.

11 (Canceled).

12. (Currently amended) A computer-readable storage medium storing instructions that are executed by a computer to cause the computer to perform a method for allocating computer system resources between concurrently executing workloads, wherein the computer-readable storage medium includes one of a volatile memory, a non-volatile memory, a disk drive, a magnetic tape, a compact disc, a digital versatile disc, and a digital video disc, the method comprising:

establishing a first resource pool that specifies requirements for each of a plurality of different computer system resources, wherein the plurality of different

computer system resources are components of a single computer system, wherein the computer system resources include central processing units and at least one of memory, swap space, network interfaces, and scheduling classes, and wherein establishing the first resource pool involves establishing minimum size and maximum size requirements for a given resource that can be assigned to the first resource pool;

allocating the plurality of different computer system resources to one or more resource pools, including the first resource pool, to create a resource allocation, wherein requirements of the first resource pool are satisfied, ~~and~~ wherein the resources are assigned to the first resource pool, and wherein each resource pool can use a different scheduling technique;

wherein prior to allocating the plurality of different computer system resources, the method further comprises:

verifying that collective requirements of the one or more resource pools can be satisfied, and

if the collective requirements cannot be satisfied, signaling an error condition; and

wherein resources allocated to the first resource pool can change over time;

binding a first process to the first resource pool, so that the first process has access to the plurality of different computer system resources allocated to the first resource pool; and

storing a representation of the resource allocation to non-volatile storage so that the resource allocation can be reused after a machine failure.

13. (Original) The computer-readable storage medium of claim 12, wherein allocating the plurality of different computer system resources to one or more resource pools involves:

partitioning each of the plurality of different computer system resources into one or more partitions, wherein a first partition is associated with a first resource and a second partition is associated with a second resource;

allocating the first partition to a single resource pool, so that only processes associated with the single resource pool can access the first partition; and

allocating the second partition to multiple resource pools so that processes associated with the multiple resource pools can share the second partition.

14 (Canceled).

15. (Original) The computer-readable storage medium of claim 12, wherein establishing the first resource pool involves selecting a file containing a representation of the first resource pool from a plurality of possible files.

16 (Canceled).

17. (Previously presented) The computer-readable storage medium of claim 12, wherein storing the representation of the resource allocation involves storing a representation of each of the one or more resource pools along with associated resources.

18. (Previously presented) The computer-readable storage medium of claim 12, wherein storing the representation of the resource allocation involves storing an Extensible Markup Language (XML) representation of the resource allocation.

19. (Original) The computer-readable storage medium of claim 12,

wherein the first resource pool is associated with a first project; and

wherein the first process is one of a plurality of processes associated with the first project.

20 (Canceled).

21. (Original) The computer-readable storage medium of claim 12, wherein the method further comprises dynamically adjusting the resource allocation during system execution.

22 (Canceled).

23. (Currently amended) A computer system that allocates computer system resources between concurrently executing workloads, comprising:

an establishment mechanism that is configured to establish a first resource pool that specifies requirements for each of a plurality of different computer system resources, wherein the plurality of different computer system resources are components of a single computer system, wherein the computer system resources include central processing units and at least one of memory, swap space, network interfaces, and scheduling classes, and wherein the establishment mechanism is configured to establish minimum size and maximum size requirements for a given resource that can be assigned to the first resource pool;

an allocation mechanism that is configured to allocate the plurality of different computer system resources to one or more resource pools, including the first resource pool, to create a resource allocation, wherein requirements of the first resource pool are satisfied, wherein the resources are assigned to the first resource pool, ~~and~~ wherein resources allocated to the first resource pool can

change over time, and wherein each resource pool can use a different scheduling technique;

a verification mechanism that is configured to verify that collective requirements of the one or more resource pools can be satisfied;

wherein if the collective requirements cannot be satisfied, the verification mechanism is configured to signal an error condition;

a binding mechanism that is configured to bind a first process to the first resource pool, so that the first process has access to the plurality of different computer system resources allocated to the first resource pool; and

an archiving mechanism that is configured to store a representation of the resource allocation to non-volatile storage so that the resource allocation can be reused after a machine failure.

24. (Previously presented) The computer system of claim 23, wherein the allocation mechanism is configured to:

partition each of the plurality of different computer system resources into one or more partitions, wherein a first partition is associated with a first resource and a second partition is associated with a second resource;

allocate the first partition to a single resource pool, so that only processes associated with the single resource pool can access the first partition; and to

allocate the second partition to multiple resource pools so that processes associated with the multiple resource pools can share the second partition.

25 (Canceled).

26. (Previously presented) The computer system of claim 23, wherein the establishment mechanism is configured to select a file containing a representation of the first resource pool from a plurality of possible files.

27 (Canceled).

28. (Previously presented) The computer system of claim 23, wherein the archiving mechanism is configured to store a representation of each of the one or more resource pools along with associated resources.

29. (Previously presented) The computer system of claim 23, wherein the archiving mechanism is configured to store an Extensible Markup Language (XML) representation of the resource allocation.

30. (Previously presented) The computer system of claim 23,

wherein the first resource pool is associated with a first project; and

wherein the first process is one of a plurality of processes associated with the first project.

31 (Canceled).

32. (Previously presented) The computer system of claim 23, further comprising an adjustment mechanism that is configured to dynamically adjust the resource allocation during system execution.

33 (Canceled).